

**Notice of Allowability**

Application No.

10/033,920

Examiner

Patricia L. Hailey

Applicant(s)

KAYAMA ET AL.

Art Unit

1755

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to an Amendment after Final Rejection, filed on March 16, 2004.
2. ☒ The allowed claim(s) is/are 1-3 and 16-32.
3. ☒ The drawings filed on 03 January 2002 are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☒ All b) ☐ Some\* c) ☐ None of the:
    1. ☒ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

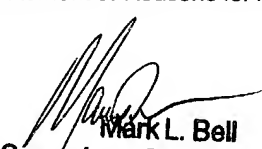
Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

- |   |   |
|---|---|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892)  | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)           |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                | 6. <input type="checkbox"/> Interview Summary (PTO-413),<br>Paper No./Mail Date _____ |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),<br>Paper No./Mail Date _____ | 7. <input type="checkbox"/> Examiner's Amendment/Comment                              |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br>of Biological Material          | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance  |
|   | 9. <input type="checkbox"/> Other _____   |

  
Mark L. Bell  
Supervisory Patent Examiner  
Technology Center 1700

Applicants' Amendment after Final Rejection, filed on March 16, 2004, has been made of record and entered. In this amendment, claims 4-15 have been canceled, and claims 22-32 have been added.

Claims 1-3 and 16-32 are now pending in this application.

Claim 1 has been amended by incorporating therein the subject matter of claim 4, which was objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim (where applicable) and any intervening claims (see Item 3 in the previous Office Action). Claim 17 has been amended to ensure proper claim dependency.

Support for new claims 22-32 can be found in claims 1-21 as originally filed. New and independent claim 22 includes therein the subject matter of claim 12, new and independent claim 31 includes therein the subject matter of claim 8, and new and independent claim 32 includes therein the subject matter of claims 10 and 11.

In the previous Office Action, claims 4, 7, 8, 10-13, and 17-21 were objected to as being dependent on rejected base claims, but would be allowable if rewritten in independent form including all of the limitations of the base claim (where applicable) and any intervening claims.

***Allowable Subject Matter***

1. Claims 1-3 and 16-32 are allowed.

*Reasons for Allowance*

2. The following is an examiner's statement of reasons for allowance:

The prior art of record does not teach or suggest the claimed molten salt catalyst, comprising a solid support and a catalytic ingredient loaded on the solid support, as recited in the instant claims.

Weimer et al. (U. S. Patent No. 6,565,820) disclose a catalyst comprising particles of molten salt supported on a support material. Examples of the molten salt include lithium nitrate and alkali metal nitrates (col. 5, lines 48-53 and col. 5, line 65 to col. 6, line 29), and examples of the support include silicon oxide, alumina, zirconia, titania, calcium oxide, and various types of materials (col. 4, line 56 to col. 5, line 33).

Weimer et al. do not teach or suggest the presence of an oxidation facilitating ingredient, as recited in claim 1 as now amended, and in claims 17-21.

Weimer et al. do not teach or suggest the presence of a catalytic ingredient comprising a composite nitrate, as recited in new claims 22-30.

Weimer et al. do not teach or suggest the employment of magnesia, lanthanum oxide, and neodymium oxide as support materials, as recited in new claim 31, nor does this reference teach or suggest the alkaline earth metal nitrates and rare earth nitrates recited in new claim 32.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

### *Priority*

3. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Applicants' Priority Document was filed on March 27, 2002.

### *Conclusion*

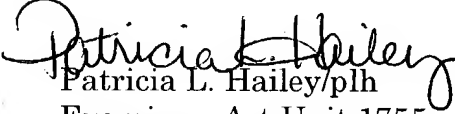
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Patricia L. Hailey whose telephone number is (571) 272-1369. The examiner can normally be reached on Mondays-Thursdays.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark L. Bell can be reached on (571) 272-1362. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group 1700 Receptionist, whose telephone number is (571) 272-1700.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Patricia L. Hailey/plh  
Examiner, Art Unit 1755  
April 5, 2004

  
Mark L. Bell  
Supervisory Patent Examiner  
Technology Center 1700